

Abstract of the Disclosure

An adaptive antenna control method is used for a radio communication system built by a plurality of radio base stations and a plurality of terminal stations capable of communicating with the radio base stations.

- 5 Each radio base station includes an adaptive antenna having a plurality of antenna elements, a distributor for generating signals to be input to the plurality of antenna elements by branching a signal of one system to be transmitted, and weighting circuits for respectively
- 10 weighting transmission signals to the plurality of antenna elements. For reception by each terminal station, an interference wave power given by the transmission signal from each of the plurality of radio base stations is estimated. A weight in the adaptive
- 15 antenna of each radio base station is determined to minimize a sum of square errors between reception signals and desired signals for all the radio base stations which simultaneously use the same communication channel. An adaptive antenna transmission/reception
- 20 characteristic control method is also disclosed.